

Listing of Claims:

1. (Currently Amended) A method, comprising:

partitioning an image into at least two or more sub-blocks, each of the at least two or more sub-blocks containing a predetermined number of pixels wherein at least one boundary between the at least two or more sub-blocks is defined, each of the pixels having a pixel video value, respectively

determining whether a predetermined condition is satisfied, wherein the predetermined condition is based upon the calculated average mean and average variance values; and,

upon satisfaction of the predetermined condition, at least for a first pixel disposed proximal to the boundary, recalculating the pixel video value for the first pixel, said recalculating step being based at least upon the pixel video value of a second pixel being disposed proximal to the first pixel;

wherein the average variance values are approximated using a piece-wise linear estimate.

2. (Original) A method as claimed in claim 1, further comprising the step of calculating an average mean of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average mean calculating step.

3. (Original) A method as claimed in claim 1, further comprising the step of calculating an average variance of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average variance calculating step.

4. (Original) A method as claimed in claim 1, further comprising the step of calculating an average variance and an average mean of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average variance and average mean calculating step.
5. (Original) A method as claimed in claim 1, the second pixel being disposed in a different sub-block from the first pixel.
6. (Original) A method as claimed in claim 1, said recalculating step being based upon a first algorithm in the event the boundary has a first slope and being based upon a second algorithm in the event the boundary has a second slope.
7. (Original) A method as claimed in claim 1, said recalculating step being implemented upon each of the predetermined number of pixels in each of the at least two or more sub-blocks adjacent to the boundary.

8. (Currently Amended) A program of instructions capable of being stored on a computer readable medium for causing a computer to implement steps for filtering a video, the steps comprising:

partitioning an image into at least two or more sub-blocks, each of the at least two or more sub-blocks containing a predetermined number of pixels wherein at least one boundary between the at least two or more sub-blocks is defined, each of the pixels having a pixel video value, respectively

determining whether a predetermined condition is satisfied, wherein the predetermined condition is based upon the calculated average mean and average variance values; and,

upon satisfaction of the predetermined condition, at least for a first pixel disposed proximal to the boundary, recalculating the pixel video value for the first pixel, said recalculating step being based at least upon the pixel video value of a second pixel being disposed proximal to the first pixel;

wherein the average variance values are approximated using a piece-wise linear estimate.

9. (Original) A program of instructions as claimed in claim 8, further comprising the step of calculating an average mean of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average mean calculating step.

10. (Original) A program of instructions as claimed in claim 8, further comprising the step of calculating an average variance of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average variance calculating step.

11. (Original) A program of instructions as claimed in claim 8, further comprising the step of calculating an average variance and an average mean of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining step being based upon at least a result of said average variance and average mean calculating step.

12. (Original) A program of instructions as claimed in claim 8, the second pixel being disposed in a different sub-block from the first pixel.

13. (Original) A program of instructions as claimed in claim 8, said recalculating step being based upon a first algorithm in the event the boundary has a first slope and being based upon a second algorithm in the event the boundary has a second slope.

14. (Original) A program of instructions as claimed in claim 8, said recalculating step being implemented upon each of the predetermined number of pixels adjacent to the boundary in each of the at least two or more sub-blocks.

15. (Currently Amended) An apparatus, comprising:

means for partitioning an image into at least two or more sub-blocks, each of the at least two or more sub-blocks containing a predetermined number of pixels wherein at least one boundary between the at least two or more sub-blocks is defined, each of the pixels having a pixel video value, respectively;

means for determining whether a predetermined condition is satisfied, wherein the predetermined condition is based upon the calculated average mean and average variance values; and,

means for recalculating the pixel video value at least for a first pixel disposed proximal to the boundary, said recalculating means being capable of utilizing at least the pixel video value of a second pixel being disposed proximal to the first pixel, said recalculating means being capable of recalculating in response to the predetermined condition being satisfied;

wherein the average variance values are approximated using a piece-wise linear estimate.

16. (Original) An apparatus as claimed in claim 15, said means for determining whether a predetermined condition is satisfied including means for calculating an average variance and an average mean of the pixel video values for the respective pixels of each of the at least two or more sub-blocks, said determining means being capable of basing a determination upon at least a result of an average variance and average means calculation.

17. (Original) An apparatus as claimed in claim 15, said partitioning means, said determining means, and said recalculating means each comprising a circuit structure capable of implementing a respective function of said partitioning means, said determining means, and said recalculating means, respectively.

18. (Original) A video system, comprising:
means for reading a video;
means for filtering the video so that blocking in the video is reduced; and
means for displaying the video filtered by said filtering means on a display.
19. (Currently Amended) A video system as claimed in claim 18, said filtering means comprising:
means for partitioning an image into at least two or more sub-blocks, each of the at least two or more sub-blocks containing a predetermined number of pixels wherein at least one boundary between the at least two or more sub-blocks is defined, each of the pixels having a pixel video value, respectively;
means for determining whether a predetermined condition is satisfied, wherein the predetermined condition is based upon the calculated average mean and average variance values; and,
means for recalculating the pixel video value at least for a first pixel disposed proximal to the boundary, said recalculating means being capable of utilizing at least the pixel video value of a second pixel being disposed proximal to the first pixel, said recalculating means being capable of recalculating in response to the predetermined condition being satisfied;
wherein the average variance values are approximated using a piece-wise linear estimate.
20. (Original) A video system as claimed in claim 18, each of said reading means, said filtering means, and said displaying means comprising a circuit capable of carrying out a corresponding function of said reading means, said filtering means, and said displaying means, respectively.

21. (New) A method as in claim 1 wherein the piece-wise linear estimate involves converting negative variance values to positive variance values and utilizing the positive variance values to calculate average variance values.
22. (New) A program of instructions as claimed in claim 8 wherein the piece-wise linear estimate involves converting negative variance values to positive variance values and utilizing the positive variance values to calculate average variance values.
23. (New) An apparatus as claimed in claim 15 wherein the piece-wise linear estimate involves converting negative variance values to positive variance values and utilizing the positive variance values to calculate average variance values.
24. (New) A video system as claimed in claim 19 wherein the piece-wise linear estimate involves converting negative variance values to positive variance values and utilizing the positive variance values to calculate average variance values.